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| 10/731,244 | 12/09/2003 | Glenn A. Cowelchuk | 1-74168 | 4873 |

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MACMILLAN, SOBANSKI & TODD, LLC
ONE MARITIME PLAZA-FIFTH FLOOR
720 WATER STREET
TOLEDO, OH 43604

| EXAMINER | |
|---|---|
| WOLLSCHLAGER, JEFFREY MICHAEL | |
| ART UNIT | PAPER NUMBER |
| 1732 | |

DATE MAILED: 11/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/731,244 | COWELCHUK ET AL. | |
| | Examiner | Art Unit | |
| | Jeff Wollschlager | 1732 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *15 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *21-51* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-35,39-45,47, 48, 50 and 51* is/are rejected.

7)☐ Claim(s) *36-38,46 and 49* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### Pre-Appeal Brief Request for Review

A Pre-Appeal Brief Conference was held in response to applicant's request dated August 15, 2006. The request for reconsideration of the finality of the rejection of the last Office action in view of the 35 U.S.C. 103(a) rejection of claims 34 and 48 was deemed persuasive by the conferees and, therefore, the finality of that action is withdrawn. An office action on the merits follows.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 34, 35, 39, 40-44, 47, 48 and 50 are rejected under 35 U.S.C. 102(b) as being anticipated by Gallagher et al. (U.S. Patent 6,460,880; issued October 8, 2002).

Regarding claim 34, Gallagher et al. teach a method of forming an airbag assembly and trim component for a vehicle comprising: providing a substrate/hinge panel defining an airbag door (element (51a)), the substrate having a passenger-compartment facing first surface and a second surface opposite the first surface; and simultaneously over-molding an outer layer on the first surface of the substrate and a hinge/hinge flange (element (36a)) on the second surface of the substrate, the hinge for retaining the airbag door on the substrate during the deployment of an airbag (col. 11, lines 45-65; Figure 8).

As to claim 35, the hinge/hinge flange and the outer layer are injected at the same time and are the same material (col. 11, lines 45-65; Figure 8).

As to claims 39 and 47, Gallagher et al teach the airbag assembly includes an airbag module housing having a closed end and an open end a plurality of outwardly extending mounting hooks being formed at the open end, wherein the airbag chute includes a plurality of hook-receiving apertures for receiving the hooks, wherein the hinge includes a plurality of elongated hook-receiving apertures for receiving the hooks, the hook-receiving apertures of the hinge extending inboard of the hooks such that the hinge is movable between a retracted position and an extended position relative to the chute, and wherein the hook-receiving apertures allow movement of the airbag chute relative to, and unrestrained by the hooks when the hinge moves between the retracted position and the extended position (fig 2 & 5).

As to claims 40-42 and 44 Gallagher et al. further over-mold an "airbag chute" for mounting the airbag assembly simultaneously while molding the outer layer and the hinge (Figure 8).

As to claim 43, Gallagher et al teach employment of various materials (col. 11, lines 7-11; col. 6, line 25; col. 11, lines 35-38).

Regarding claim 48, Gallagher et al. teach applying a urethane foam layer and a protective skin layer on the external surface of the molded assembly (col. 11, lines 7-12). This urethane foam layer and protective skin layer form an outer layer on the first surface (Figure 14, elements (120) and (122), respectively). Further, this third embodiment in Gallagher et al. is taught to be combinable with the other molding

methods, including the molding method taught in col. 11, lines 30-65 (col. 11, lines 10 and 43). In that molding method, Gallagher et al. teach a method comprising providing a mold cavity and placing a substrate defining an airbag door into the mold cavity to define first and second cavities. By combining the two embodiments, as taught by Gallagher et al., the "second material" is injected first and forms a hinge/hinge flange on the second surface of the substrate and a layer of material on the first surface. The "first material" is injected second and forms a protective outer layer on the first surface. The "second material" is injected into both cavities and the "first material" is injected only into the first cavity.

As to claim 50, Gallagher et al. teach employment of various materials (col. 11, lines 7-11; col. 6, line 25; col. 11, lines 35-38).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 21-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gallagher et al (6460880) in view of Goldbach (6780365) and Kinane (20030080540).

Regarding claim 21, Gallagher et al teach a method of forming an airbag assembly and trim component for a vehicle (abstract) comprising: providing a substrate defining an airbag door (fig 5, 14) but does not teach simultaneously over-molding an airbag chute for mounting the airbag assembly and a hinge for retaining the airbag door on the substrate during deployment of an air bag. However, Kinane teaches that the chute can be separately injection molded from the same molded-in-color polypropylene as the substrate (001 l& fig 2). Furthermore, Goldbach teaches simultaneously over-molding first (hinge) and second (chute) thermoplastic parts being joined by the base body/substrate (abstract). Therefore Goldbach's teaching could be used in Gallagher et al's method for forming an air bag assembly to simultaneously mold the chute and the hinge in order to reduce cycle time (col 1 lines 42-47) and Kinane's teaching could be used in Gallagher et al's method for forming an air bag assembly to injection mold the chute unto a substrate in order to form the chute out of different material than the substrate.

Regarding claim 22, Gallagher et al teach the hinge and the airbag chute are formed from the same material (col 8 lines 16-21).

Regarding claim 23, Gallagher et al teach forming an outer layer (fig 14, 122) out of urethane foam (col 11 lines 7-9). Gallagher et al also teach forming the substrate layer that is formed from a polypropylene (fig 5 & col 6 lines 22-30).

Regarding claims 24 and 25, Gallagher et al teach forming an outer out of urethane foam layer (col 11 lines 7-11), forming a substrate out of polypropylene (col 6 line 25), and then forming a hinge layer out of another/third plastic material (col 11 lines 35-38).

Regarding claim 26, as set forth in claim 1 rejection, Gallagher et al in view of Goldbach and Kinane teach simultaneous over-molding the hinge and the chute of the air bag assembly on the substrate. Gallagher et al also teach forming an outer layer made of urethane foam (col 11 lines 7-11) and the substrate (10) being made out of polypropylene (col 6 line 25).

Regarding claims 27 and 28, Gallagher et al teach forming an outer out of urethane foam layer (col 11 lines 7-11), forming a substrate out of polypropylene (col 6 line 25), and then forming a hinge layer out another/third plastic material (col 11 lines 35-38).

Regarding claim 29, Gallagher et al teach the airbag assembly includes an airbag module housing having a closed end and an open end a plurality of outwardly extending mounting hooks being formed at the open end, wherein the airbag chute includes a plurality of hook-receiving apertures for receiving the hooks, wherein the hinge includes a plurality of elongated hook-receiving apertures for receiving the hooks, the hook-receiving apertures of the hinge extending inboard of the hooks such that the

hinge is movable between a retracted position and an extended position relative to the chute, and wherein the hook-receiving apertures allow movement of the airbag chute relative to, and unrestrained by the hooks when the hinge moves between the retracted position and the extended position (fig 2 & 5).

Claims 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gallagher et al (6460880) in view of Goldbach (6780365) and Kinane (20030080540).

Regarding claims 30-32, Gallagher et al teach providing a mold assembly having a mold cavity (fig 6); placing a substrate defining an airbag door into the mold cavity to define first and second cavities (fig 6) but does not teach injecting a first material into the first cavity to form an airbag chute for mounting the airbag assembly and injecting a second material into the second cavity to form a hinge for retaining the airbag door on the substrate during deployment of an air bag. However, Kinane teaches that the chute can be separately injection molded from the same molded-in-color polypropylene as the substrate (0011& fig 2). Furthermore, Goldbach teaches simultaneously over-molding first (hinge) and second (chute) thermoplastic parts being joined by the base body/substrate (abstract). Therefore Goldbach's teaching could be used in Gallagher et al's method for forming an air bag assembly to simultaneously mold the chute and the hinge in order to reduce cycle time (col 1 lines 42-47) and Kinane's teaching could be used in Gallagher et al.'s method for forming an air bag assembly to injection mold the chute unto a substrate in order to form the chute out of different material than the substrate.

Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gallagher et al (6460880) in view of Goldbach (6780365) and Kinane (20030080540), as applied to claims 30-32 above, further in view of Hallard et al (53462349).

Gallagher et al do not teach inserting scrim material within the second cavity. However, Hallard et al add flexible scrim material when making the hinge. Therefore it would have been obvious to use the teachings of Hallard et al in Gallagher et al's method of manufacturing air bag assembly in order to permit unfolding along while preventing complete separation of the door or panel from the fixed wall structure which could cause personal injury (col 3 lines 29-37).

Claims 45 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gallagher et al (6460880), as applied to claims 34, 35, 39, 40-44, 47, 48 and 50 above, further in view of Hallard et al (53462349).

As to claims 45 and 51, Gallagher et al. do not teach inserting scrim material within the second cavity. However, Hallard et al. add flexible scrim material when making the hinge. Therefore it would have been prima facie obvious to one having ordinary skill in the art to use the teachings of Hallard et al in Gallagher et al's method of manufacturing air bag assembly in order to permit unfolding along while preventing complete separation of the door or panel from the fixed wall structure which could cause personal injury (col 3 lines 29-37).

***Allowable Subject Matter***

Claims 36-38, 46, and 49 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments filed August 15, 2006 with the pre-appeal brief review request have been fully considered but they are not fully persuasive.

Applicant's arguments appear to be on the following grounds:

1. Gallagher et al. form the hinge panel separately and place it in the mold cavity.

2. Gallagher et al. fail to define first and second cavities.

Applicant's arguments are not persuasive for the following reasons:

1. According to the examiner's interpretation of the claims and the reference, the claimed substrate is the hinge panel in Gallagher et al. and the claimed hinge is the hinge flange in Gallagher et al. Applicant's argument emphasizes that the hinge panel/substrate is placed in the mold cavity in the method of Gallagher et al. The examiner notes that the hinge panel/substrate is "provided" in claim 34. The examiner sees no distinction between "providing" and "placing". The hinge panel substrate is not "formed" in the same mold as the hinge/hinge flange and the outer layer until claim 36. Claim 36 has been indicated as containing allowable subject matter.

2. Referring to Figure 8, Gallagher et al. form 2 distinct cavities, see the rejection of claim 48 above. The examiner acknowledges that these 2 cavities are communicable with each other. However, according to the instant specification (U.S. PGPUB 2005/0121818; paragraph [0058]), the cavities may have a "communicable connection".

***Conclusion***

Claims 21-35, 39-45, 48 and 50-51 are rejected. Claims 36-38, 46, and 49 are objected to as being dependent upon a rejected base claim.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5,685,930 and U.S. Patent 5,158,322 teach employment of scrims/meshes in analogous methods

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Wollschlager whose telephone number is 571-272-8937. The examiner can normally be reached on Monday - Thursday 7:00 - 4:45, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JW

Jeff Wollschlager
Examiner
Art Unit 1732

November 15, 2006

CHRISTINA JOHNSON
SUPERVISORY PATENT EXAMINER
11/14/06